Thermoreceptors: The Gateway for Human Feelings

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ABSTRACT

This study investigates the correlation between different temperatures and one's mood. The ultimate purpose of the study is to determine which temperature cold or warm is better for projecting a positive mood on humans. A major part of this study is to examine the affect that the human thermoreceptors play in determining ones mood. The behavioral mood is measured by using both warm and cold cup of coffees which was held by the participant (each in its own respective time).

The warm cup of coffee has a temperature of 45 degree Celsius and the Cold cup of coffee has a temperature of 10 degree Celsius. Participants showed different mood behaviors when holding the warm and cold cup of coffees, this was influenced by a picture which was given to them (the picture being of a random person). While holding a warm or cold cup of coffee participants had to state their views of the person being portrayed in the picture. Their response was then gathered and stored as data. The statistical data suggest when holding a warm cup of coffee the participants had a positive reaction to the person being portrayed in the picture, but when holding the cold cup of coffee they had a negative reaction towards the picture. This study validates that the human-feeling relates to the Physical nature of substances that is reflection of thermoreceptors.

INTRODUCTION

How do we sense temperatures? Thermoreceptors are sensory receptors that are able to code relative as well as absolute changes in temperatures. When skin temperature reaches 30 degree Celsius or above, neurons that specialize in temperature detection of warmth become active and starts to fire action potentials; when temperature increases so thus the firing frequencies until the saturating value.

The same thing happens when dealing with cold temperatures. Heat and cold sensations are sent to the somatosensory systems in the brain where it induces different kinds of responses. Somatosensory systems are responsible for informing us about different objects in our external surroundings through touch.

METHODOLOGY

This experiment aimed to identify the correlations between the different temperatures & human behavior. The state-of-art-research is to validate the bent of mind towards different situations. The goal of the experiment was to hand a participant a cold and warm cup of coffee while simultaneously showing them a picture portraying a stranger and asking them if they would trust the person being portrayed in the picture.

During the experiment a participant would be approached by two researchers, who had in their hands two cups of coffee one cold and the other warm, who asked if they were interested in participating in an experiment. After an agreement was obtained, the researchers would proceed towards asking them their ages and how they felt on that particular day. While the participants were answering the question the researchers would ask the participants if they would be willing to hold the researcher's cup of coffee (either warm or cold) in order to allow researchers to write down the participants answer. The participants wouldn't be aware that the cup of coffee was the real experiment; they simply thought they were doing the researcher a favor by holding the cup of coffee.

While the participant was holding the cup of coffee, which could have been warm or cold, one of the researchers would show the participant a picture of a man. Then the researcher would ask the participant how much he/she trusted the person being portrayed in the picture; did they have a high level of trust, normal level of trust, were they neutral, did they mistrust or did they highly mistrust the person being portrayed in the picture. The answers given were recorded in on a data chart and used to make a graph.

EVALUATION OF RESULT

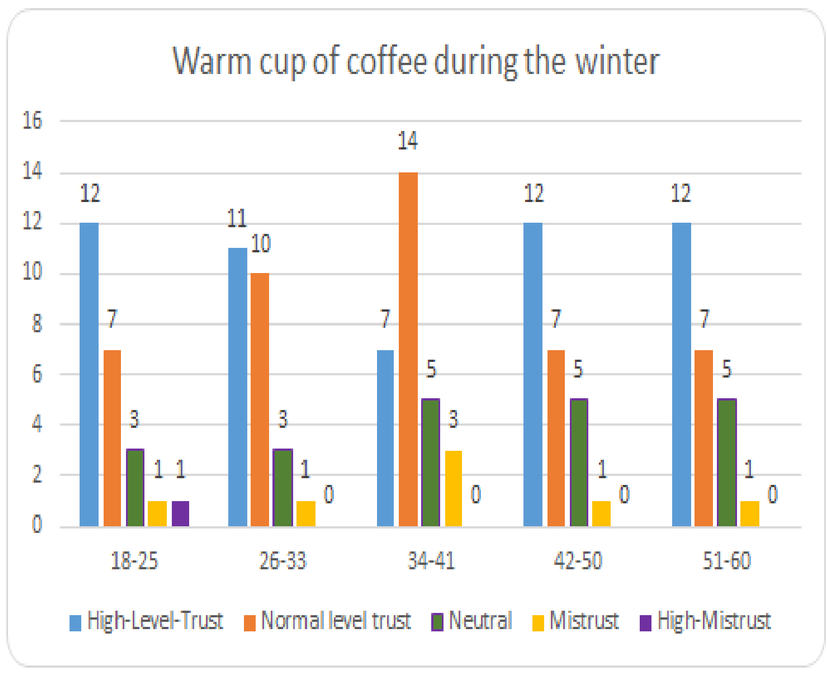

Figure 1:Showing the behavior of individuals when holding warm cup of coffee during winter

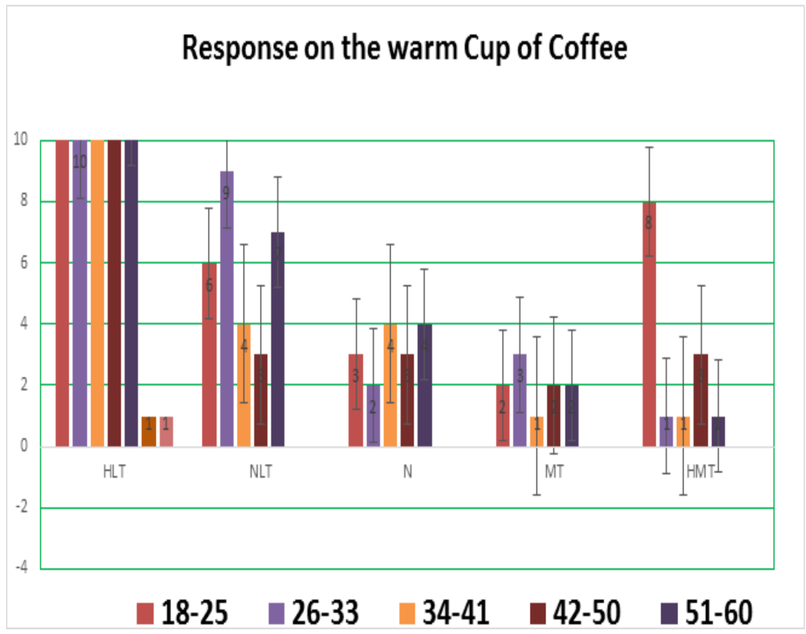

Figure 2:Showing the behavior of individuals when holding warm cup of coffee during Summer

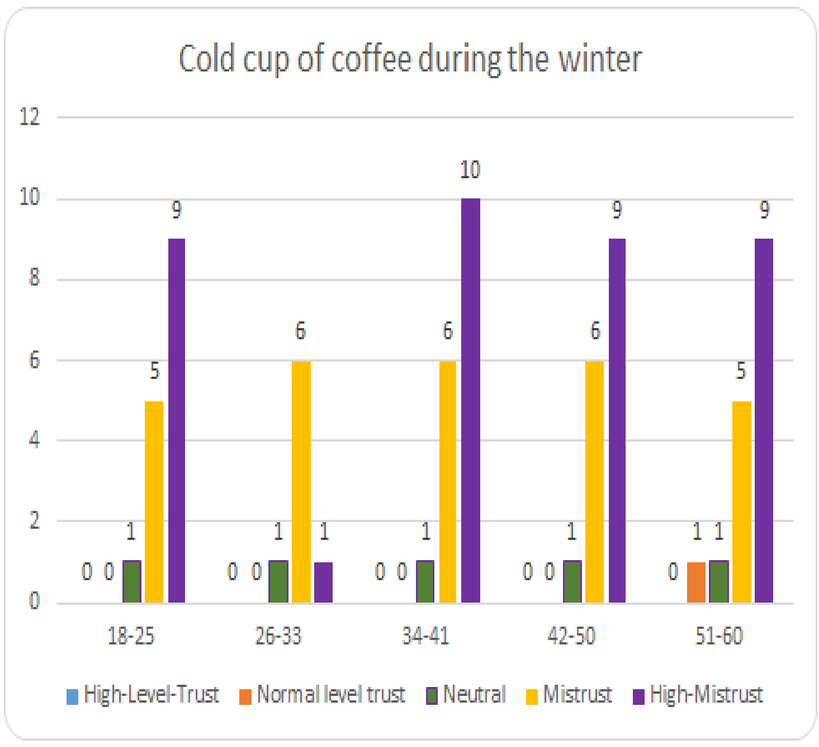

Figure 3:Showing the behavior of individuals when holding cold cup of coffee during winter

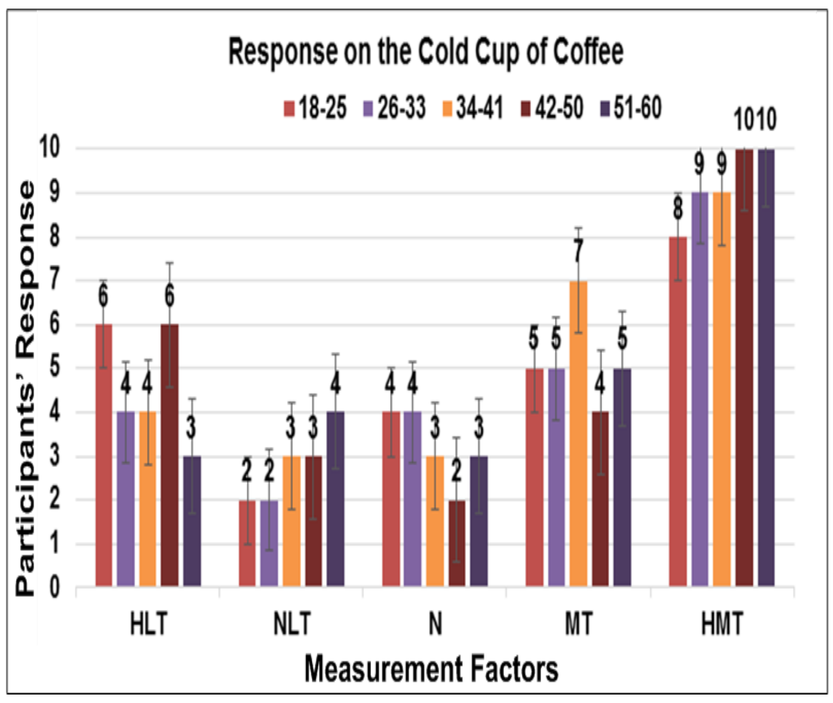

Figure 4: Showing the behavior of individuals when holding cold cup of coffee during Summer

FACE REFLECTION

Figure 5: Showing joy while holding the cup of coffee

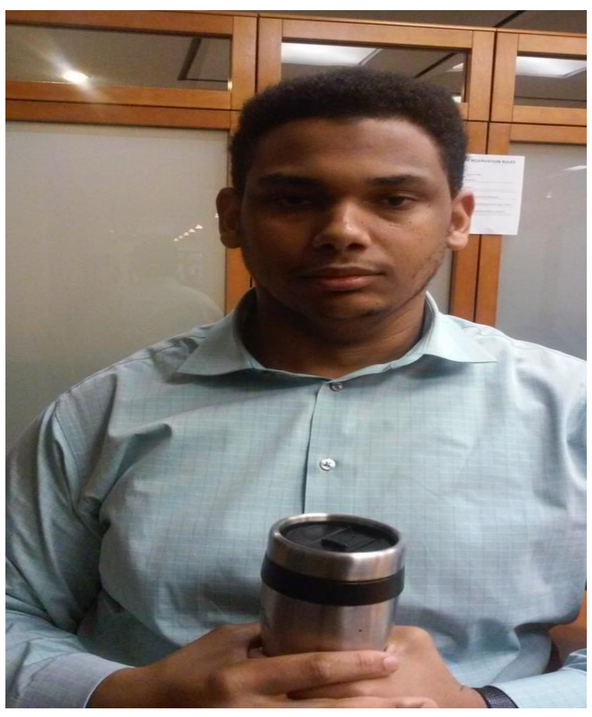

Figure 6: Showing anger holding the cup of coffee

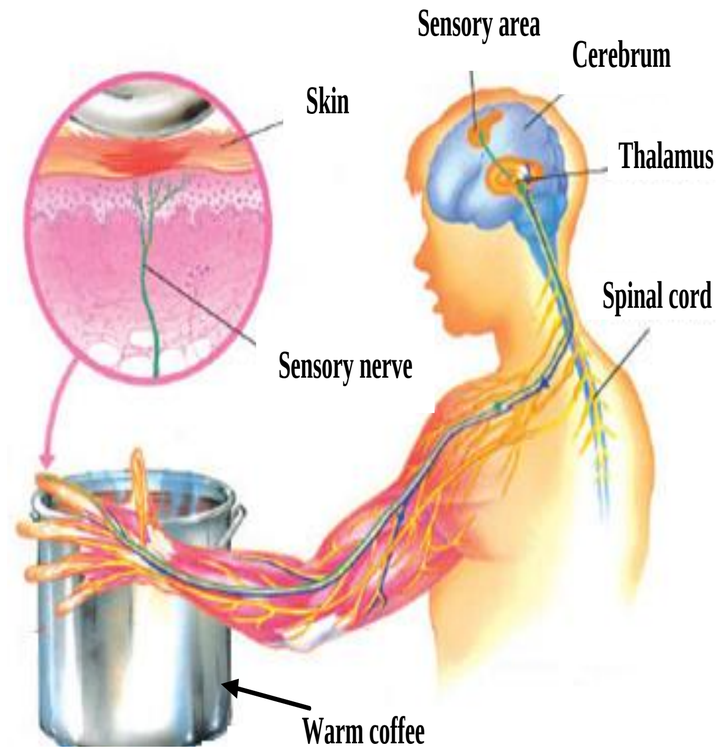

Figure 7:different nerves that are activated when the person touches a hot cup of coffee.

CONCLUSION

In this poster, thermo receptors of the human brain were used to analyze the behavior of each individual based on the cold and warm cup of coffee. The statistical data shows that thermo receptors are the best indicators for reflecting the feelings of humans. We have evaluated the behavior of individual of different age group and obtained the reaction by giving them a cold and warm cup of coffee to hold in their hand. At the end, we proved that the human brain behaves according to the subject and condition. If best condition are provided then human can be happy and will survive for longer period of time.